



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/519,384

12/27/2004

Stig Lindemann

742111-164

6936

25570

7590

04/01/2008

ROBERTS, MLOTKOWSKI & HOBBS

P. O. BOX 10064

MCLEAN, VA 22102-8064

EXAMINER

MATTIS, JASON E

ART UNIT

PAPER NUMBER

2616

NOTIFICATION DATE

DELIVERY MODE

04/01/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Dbeltran@rmhlaw.com

LGaughan@rmhlaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,384	<b>Applicant(s)</b> LINDEMANN, STIG	
	<b>Examiner</b> JASON E. MATTIS	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1 paper</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

The drawing description on page 15 lines 9-23 of the specification does not match the actual drawings. The specification refers to "figure 5" however, it appears this section is describing the elements of figure 9. Further, the reference numbers used in this section also do not match the correct reference numbers used in the drawings.

There appear to be further errors in the specification where figure numbers discussed do not match the correct figure of the drawings. Page 13 references each of figures 7, 8, and 9 however the accompanying text is directed towards figures 6, 7, and 8, respectively.

It is recommended that the entire specification be reviewed and amended to eliminate these errors and make sure that each of the drawing descriptions within the specification refers to the correct figure numbers and reference numbers used in the drawings.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2616

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 25 recites the limitation "said physical value" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior mention of any "physical value" in either claim 25 or claim 16, which claim 25 depends on. There is use of the term "physical value" on line 2 of claim 24; however, claim 25 does not currently depend on claim 24. It is recommended that claim 25 either be amended such that it depends on claim 24, or that some other amendment is made resulting in sufficient antecedent basis for the limitation "said physical value".

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 16-28 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Kostadinov (U.S. Pat. 7032045 B2).

**With respect to claim 16, 26, and 30,** Kostadinov discloses an adapter including a storage medium having instructions stored thereon for performing a method

of transmitting and receiving control data from a field bus network where data is being exchanged according to a specific field bus protocol (**See the abstract, column 5 lines 1-20, and Figure 2 of Kostadinov for reference to an actuator 120, which is a field bus adapter, executing software instructions stored a memory to perform a method of transmitting and receiving control data according to a field bus communications protocol**). Kostadinov also discloses a transmitter transmitting data to the field bus network and a receiver receiving data from the field bus network (**See column 5 lines 1-25 and Figure 2 of Kostadinov for reference to the actuator 120 including a communication interface that comprises a transmitter and receiver to both transmit and receive signals over the bus 110**). Kostadinov further discloses a protocol detector detecting a field bus protocol between a number of predefined field bus protocols and setting up the receiver and the transmitter to communicate according to the detected field bus protocol (**See column 7 lines 36-55 of Kostadinov for reference to the actuator using processor 210 to identify which field bus communications protocol of a set of communications protocols known to the actuator 120 is being used to encode signals on the bus 110**). Kostadinov also discloses a means for receiving data from the field bus, a means for determining if the received data complies with predefined characteristics stored in a database with the characteristics uniquely identifying data of only one of the number of predefined field bus protocols, and a means for setting up the receiver and transmitter to communicate according to the one protocol if the received data complies with the characteristics (**See column 8 lines 6-56, column 9 lines 40-61, and Figure 5A of Kostadinov for**

**reference to receiving a bus signal in step 501, for reference to determining if the bus signal complies with a predefined format and length stored in a table with the format and length uniquely identifying only one of the predefined field bus protocols in steps 505, 510, and 515, and for reference to setting up the actuator 120 to process signals according to the identified protocol if the bus signal complies with the format and length in step 520).**

**With respect to claims 17 and 27, Kostadinov discloses the adapter detecting two predefined field bus protocols with the protocol detector comprising a means for receiving data from the field bus, a means for determining if the data complies with predefined characteristics stored in a database uniquely identifying data of a first of the two predefined field bus protocol, a means for setting up the receiver and the transmitter for communicating according to the first predefined field bus protocol if the data complies with the characteristics, and a means for setting up the receiver and the transmitter for communicating according to a second predefined field bus protocol if the data does not comply with the characteristics (See column 8 lines 6-56, column 9 lines 40-61, and Figure 5A of Kostadinov for reference to detecting both a Foundation Fieldbus protocol and a Profibus protocol by receiving a bus signal in step 501, for reference to determining if the bus signal complies with a predefined format and length stored in a table with the format and length uniquely identifying a first one of the predefined field bus protocols in steps 505, 510, and 515, for reference to setting up the actuator 120 to process signals according to the first protocol if the bus signal complies with the format an length in step 520, and for**

**reference to setting up the actuator 120 to process signals according to the second protocol if the bus signal does not comply with the format and length of the first protocol in step 520).**

**With respect to claim 18,** Kostadinov discloses the data being received in data frames comprising a number of fields and the characteristics uniquely identifying frames of one of the predefined field bus protocols **(See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using the Foundation Fieldbus protocol and the Profibus protocol, which both send data in data frames comprising a number of fields and for reference to using the characteristics of received data frames to identify a field bus protocol).**

**With respect to claim 19,** Kostadinov discloses the characteristics comprising the content of specific fields of the data frame **(See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using specific field contents of received Foundation Fieldbus protocol frames and Profibus protocol frames to identify the protocol of the received frames).**

**With respect to claim 20,** Kostadinov discloses the characteristics comprising the length of a data frame **(See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using the length of a received signal to identify the protocol of the signal).**

**With respect to claim 21,** Kostadinov discloses detecting the protocol based on more than one frame **(See column 8 lines 6-56 and Figure 5A of Kostadinov for**

**reference to using multiple received bus signals to detect a protocol if the protocol cannot be identified based on the first received bus signal).**

**With respect to claim 22**, Kostadinov discloses that the first protocol is Profibus and the second field bus protocol is Foundation Fieldbus **(See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to for reference to identifying both Profibus and Foundation Fieldbus protocols).**

**With respect to claim 23**, Kostadinov discloses using the content of the first field in the data frame and the length of the data frame to uniquely identify a Foundation Fieldbus protocol **(See column 8 lines 6-56 and Figure 5A of Kostadinov for reference to using the data of a first byte of a data frame and the length of the data frame to identify a Foundation Fieldbus protocol).**

**With respect to claim 24**, Kostadinov discloses the control data being a value representing a measured physical value **(See column 4 lines 7-16 and column 5 lines 21-25 of Kostadinov for reference to the sending and receiving signals representing measured physical values, for example, a measured temperature, pressure, flow rate, etc.).**

**With respect to claim 25**, Kostadinov discloses the adapter comprising a means for measuring the physical value **(See column 4 lines 7-16 and column 5 lines 21-25 of Kostadinov for reference to the actuator 120 including a sensor 230 to measure the physical value).**

**With respect to claim 28**, Kostadinov discloses performing the step of detecting and setting up only in an initialization phase before transmitting and receiving control



data via the field bus network (**See column 10 line 57 to column 11 line 11 and Figure 6 of Kostadinov for reference to only performing protocol detection as an initialization procedure for the actuator 120**).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kostadinov in view of Allmond et al. (U.S. Pat. 5754552).

**With respect to claim 29**, Kostadinov does not disclose periodically detecting the protocol.

**With respect to claim 29**, Allmond et al., in the field of communications, discloses periodically detecting a protocol (**See column 16 lines 41-53 of Allmond et al. for reference to periodically monitoring, detecting, and updating an identified protocol used by network devices**). Periodically detecting a protocol has the advantage of allowing a device to adjust to changes in the protocol used by a system.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Allmond et al., to combine periodically

detecting a protocol, as suggested by Allmond et al., with the system and method of Kostadinov, with the motivation being to allow a device to adjust to changes in the protocol used by a system.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON E. MATTIS whose telephone number is (571)272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason E Mattis

Application/Control Number: 10/519,384  
Art Unit: 2616

Page 10

Examiner  
Art Unit 2616

jem

/Jason E Mattis/  
Examiner, Art Unit 2616